BEFORE THE
FEDERAL COMMUNICATIONS COMMISSION
WASHINGTON, D.C. 20554

In the Matter of	)	
	)	
Southwestern Bell Telephone Company, Pacific Bell, and Nevada Bell Petition for Relief from Regulation Pursuant to Section 706 of the Telecommunications Act of 1996 and 47 U.S.C. § 160 for ADSL Infrastructure and Service	)	CC Docket No. 98-91

REPLY COMMENTS OF SOUTHWESTERN BELL TELEPHONE COMPANY, PACIFIC BELL, AND NEVADA BELL

SOUTHWESTERN BELL TELEPHONE COMPANY
PACIFIC BELL
NEVADA BELL

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SUMMARY*

The oppositions to the SBC LECs' Petition came just as Chairman Kennard endorsed the logic behind the request for regulatory relief -- that price regulation, unbundling, and wholesale discounts for advanced services like ADSL create disincentives for investment and deployment, and that relief for an incumbent LEC is appropriate when its network is sufficiently open. The SBC LECs look forward to working with the Commission on these deregulatory objectives that will further specific Congressional goals.

The SBC LECs urge the Commission to resolve expeditiously the issue of whether section 706 acts as an independent authority not subject to the limitations of section 10. The six different 706 proceedings have given parties a full opportunity to debate this issue, and the Commission should not use next month's mandated proceeding to seek further input.

The regulation relief sought by the SBC LECs will not eliminate high-speed data competition as various parties allege, but rather will enhance competition among high-speed data providers using three different technologies, to the ultimate benefit of consumers. The regulatory process is again being used in an attempt to maintain artificial competitive advantages.

The relief for ADSL service is appropriate in light of the actual and potential competition in the high-speed data market, much of which does not depend upon any network facilities from the SBC LECs. Carriers have access to unbundled loops and collocation to provide their own ADSL services and are not "niche" providers. In fact, the SBC LECs provide over 300 physical collocation arrangements with pending orders that will more than *double* that amount. The

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* The abbreviations used in this Summary are as defined in the main text.

ability of carriers to place ADSL or other high-speed data technologies in those arrangements at any time, and the competition that already exists, ensures that the standards of section 10 are fully met.

Given that the SBC LECs have not yet begun to provide ADSL service, they can hardly be termed "dominant." Rather, as new entrants readily admit, they are the dominant (if not only) providers of ADSL. In light of the data providers that do not need access to the SBC LECs' facilities and the access that other competitors have through unbundled loops and collocation, there is no legitimate reason for denying the regulatory relief sought by the SBC LECs. Longstanding Commission policy and precedent clearly support that relief, and regulatory trends are consistently in that direction.

The FCC should also promptly resolve the dispute over the interstate nature of Internet traffic.

The SBC LECs' spectrum management plan is necessary and reasonable. Such management is used to avoid interference on the network, a concern familiar to the Commission. Compared to terminal equipment connection to the public switched network --- which is subject to 150 pages of rules in 47 C.F.R. Part 68 -- the connection of ADSL transmission equipment to an unbundled loop causes interference concerns of a potential magnitude that are much greater. The SBC LEC's spectrum management is grounded on the only ADSL standard that has been adopted, and the SBC LECs have selected equipment that complies with that standard. Nevertheless, other carriers can use whatever ADSL equipment they wish subject to the same "power spectral density" limitations. The SBC LECs believe that the non-standard equipment

used by other carriers should be able to achieve with the same or substantially similar operational results under that PSD. Also, ADSL is typically not a disturber. The SBC LECs welcome technical data that supports use of a different PSD that accommodates ANSI T1.413 and that does not significantly increase the risk of interference, and understand that spectrum management is an issue that will have to be discussed and, as necessary, arbitrated.

The other two loop checks are also reasonable. The SBC LECs presume that a carrier wishing to provide ADSL service actually wants a loop that is likely to support ADSL.

The SBC LECs already provide collocation for ADSL equipment and, in the aggregate as of May 1998, have over 300 physical collocation arrangements with more than 300 orders pending that are or could be used to place ADSL equipment. The terms and conditions under which collocation is provided have been agreed to by carriers, or have been subject to multiple regulatory reviews; this proceeding is not a forum to re-debate those issues. The issue of "cageless" collocation has already been reviewed and rejected by the FCC on the grounds of legitimate security issues for both the incumbent LEC and collocated carriers. Nothing has changed to reverse that rejection, or to revisit the Commission's adoption of a rule that permits the carrier to subcontract its own cage to address the concerns of carriers.

There is nothing inconsistent with having space available for an incumbent LEC's own equipment when there is insufficient space for physical collocation. Using virtual collocation as a substitute presumes that space may be available for the equipment, but not in a physical collocation arrangement. To address space exhaustion and complaints surrounding the provision of physical collocation, the SBC LECs are improving processes, attempting to identify more

space, and discussing alternatives with requesting carriers.

Incumbent LECs are under no obligation to provide either physical collocation or unbundled loops to ISPs, who disclaim that they are carriers. Moreover, providing physical collocation to ISPs would only accelerate space exhaust.

The SBC LECs have not asked for any relief from unbundled loops or collocation requirements; their requested MFN relief only addresses any obligations to unbundle ADSL equipment or provide ADSL service at a wholesale discount.

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REPLY COMMENTS OF
SOUTHWESTERN BELL TELEPHONE COMPANY,
PACIFIC BELL, AND NEVADA BELL

Southwestern Bell Telephone Company, Pacific Bell, and Nevada Bell ("the "SBC LECs") file these Reply Comments regarding its Petition for Relief from Regulation ("Petition"). The oppositions to the Petition come just as Chairman William E. Kennard has endorsed the logic behind the SBC LECs' request -- that a deregulatory approach is needed in order to provide all carriers with equal, proper economic incentives to encourage the deployment of broadband technologies like Asymmetrical Digital Subscriber Line ("ADSL") on a widespread basis, and that such an approach should include relief from price regulation, any unbundling obligations, and any wholesale discount requirement.

> So our job is to ensure that these bandwidth technologies that can improve the lives of American consumers are deployed in a pro-competitive manner. I believe that this is what Congress intended the FCC to do.
>
> So what does this mean? For openers, it means no price regulation for residential high speed data services. All companies are new entrants when it comes to these services, and I see no need for price regulation. But we should go even further. To

> provide the advanced services, telephone companies will have to invest in advanced electronics. But the telephone companies have rightly asked, why should we make this new investment if we simply have to turn around and sell this new service -- or the capabilities of these advanced electronics -- to our competitors? If the telephone company has opened up its underlying networks to competition, the competitors can invest in the same advanced services.
>
> Where networks are open, I see no reason to require discount resale or unbundling of these new services and advanced technologies that are available to all.[1]

The SBC LECs look forward to working with the Commission to address these deregulatory objectives so that broadband technologies will be made widely available to consumers at reasonable prices, all in furtherance of the explicit Congressional goals.[2]

With these Reply Comments, the SBC LECs respond to oppositions to their Petition. The failure by the SBC LECs to address any of the many allegations and assertions should not be construed as agreement or acquiescence.

I. THE COMMISSION SHOULD ACT PROMPTLY TO RESOLVE THE DEBATE OVER SECTION 706 IN ACCORDANCE WITH ITS PLAIN LANGUAGE

The authority granted to the FCC under section 706 was again contested by parties that consistently seek to keep incumbent LECs constrained, restricted, and subjected to their demands and those of other high-speed data competitors notwithstanding the negative effects on

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[1] "A Broad(band) Vision for America," Remarks by William E. Kennard, Chairman, Federal Communications Commission to Federal Communications Bar Association, June 24, 1998.

[2] The goal of having new telecommunications services, and broadband in particular, available to the public is reflected throughout the Communications Act of 1934, as amended, with section 706 of the Telecommunications Act of 1996 and 47 U.S.C. § 157 being of particular note.

consumers or the achievement of Congressional objectives. The SBC LECs do not believe that anything submitted in the comments in this proceeding has provided any new insight into the section 706 debate before the FCC, and thus will not again reiterate its side of the debate. Suffice it to say that the SBC LECs believe that section 706 provides a separate grant of authority to the FCC, which is independent of the limitation of section 10. Any other interpretation of section 706 ignores statutory language, cannot be harmoniously construed with section 10, or reaches an absurd result.

Nevertheless, the SBC LECs feel the need to address the assertions made by some commenters that section 706 relief is not needed, relying in part on the various announced deployment of ADSL services by incumbent LECs.[3] Under this view, there would apparently be only a short "window" where relief for an incumbent LEC would be appropriate under section 706, but that window closes no later than when an incumbent LEC responds to competition. Such an interpretation would obviously create a perverse system where the only way for an incumbent LEC to obtain 706 relief is to stay out of a market and to withhold deployment until relief -- directly contrary to the entire thrust of section 706.

Moreover, the fact that there may be one or more other providers of high-speed data services does not ensure that high-speed service approaches the goal of availability to "all Americans." There is no indication whatsoever in the statute that the presence of one possible source of advanced telecommunications capability totally forecloses 706 relief for any other

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[3] Commercial Internet Exchange Association ("CIX"), pp. 8-9.

potential provider or technology, or that any such relief is to disappear if a competitor later arises. Providing incumbent LECs many of the same incentives as its competitors in order to incent greater and more prompt investments in advanced telecommunications capability is hardly contrary to the statute or risky for the Commission. Simply put, the Commission is not foreclosed by the statute from encouraging alternative technologies, alternative carriers, broader availability, and ultimately more choices to further 706's goals.

The issue of section 706 authority is thus clearly ripe for FCC decision, and the SBC LECs urge the Commission to resolve it expeditiously. The Commission should not use the section 706 proceeding that must begin next month to seek more input on this fundamental legal issue. With no less than six separate pending proceedings based on section 706, any party interested in providing input into the debate has been afforded ample opportunity to have its views heard. The record on this legal issue is clearly complete and the issue squarely presented. In order that the entire industry can begin to make marketing, capital deployment, network, and financial decisions with less regulatory uncertainty, the SBC LECs urge the FCC to rule on the legal issue of the scope and authority of section 706 as promptly as may be possible. Although the Petition and the section 706 petitions of the other incumbent LECs should also be granted just as promptly, a decision on the legal issue surrounding section 706 would at least permit the industry to make more considered judgments in the area of high-speed data services and facilities.

II. THE RELIEF SOUGHT BY THE SBC LECS WILL NOT ELIMINATE INTERFIRM COMPETITION

Several parties have complained that permitting the SBC LECs to enter the high speed data market on a non-dominant carrier basis will reduce the level of competition in the market place. The implication is that the pricing flexibility requested by the SBC LECs could be used to drive competitors out of business. This argument has been made on numerous occasions in the past by competitors seeking a competitive advantage through the regulatory process. The unique application of this argument is that competitors are now attempting to apply it to advanced services provided through an array of new technologies.

There are at least three types of technology used to provide consumers with high-speed data access: telephone network, cable television network, and satellites (e.g, Direct Broadcast Satellite). Each operates independently and as such do not depend on each other for success. The company that can provide service most efficiently through its respective technology and provides the customer with the greatest value should win the business.

Within the realm of high-speed data provided through the telephone network, the 1996 Act and the Commission's rules have ensured that the local market is open by removing all barriers to entry. Competitive local exchange carriers can either construct facilities to customers or they can provide services using an incumbent LEC's loops. The Commission's accounting rules provide safeguards to ensure that the ILEC cannot subsidize its deregulated services by increasing the prices of its regulated telecommunications services. These accounting rules impose an additional level of costs that competitors do not incur. To now argue that the SBC

LECs should not have the same degree of regulatory flexibility for pricing has the practical effect of severely limiting SBC as a competitor. This result is completely contrary to good public policy.

III. THE REGULATORY RELIEF SOUGHT FOR ADSL SERVICES IS APPROPRIATE

Several commenters have objected to the SBC LECs's request for relief from dominant treatment of their ADSL services. SBC LECs' ADSL service will face substantial competition and competitors in the high-speed data market (just drastically enhanced by AT&T's announced purchase of TCI). Contrary to claims, incumbent LECs like the SBC LECs are not dominant providers of ADSL, and the dominant treatment of ADSL cannot be derived from the dominant treatment of an incumbent LEC's local loops. The relief from dominant treatment sought for the SBC LECs' ADSL services would be consistent with, and fully warranted by, previous Commission decisions. At bottom, section 706 – an unambiguously deregulatory provision – requires deregulation of innovative, broadband digital facilities and services like ADSL in order to encourage more and faster investment in those advanced capabilities.

A. There is Significant Actual and Potential Competition in the High-Speed Data Market

First, the actual and potential competition in high-speed data market should not be minimized. No one seriously disputed the presence, accelerating growth, and capabilities of cable modem service[4] or satellite-based data services, now direct broadcast satellite and soon to

[4] See "Comments" of SBC Communications Inc. (filed June 18, 1998) in *Petition of the Association for Local Telecommunications Services (ALTS) for a Declaratory Ruling*

include new satellite services.[5] Those firms, unregulated in any way like the SBC LECs, enjoy significant benefits due to operational and marketing flexibilities, and are already providing service in several locales where the SBC LECs expect to provide service. Those that seek to denigrate cable modem technology by attempting to highlight its limitations obviously want the Commission to supplant competition with a regulatory decision.[6] Consumers will be the ultimate determiner of the success of the various high-speed data services that are or will be available. The Commission should seek to maximize consumer choices and competition, not presume to favor one technology over another, or to decide which will receive greater consumer favor. Indeed, one need look no further than the AT&T/TCI announcement of last week to help gauge how promising AT&T believes the technology and cable plant to be. The non-dominant

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Establishing Conditions Necessary to Promote Deployment of Advanced Telecommunications Capability Under Section 706 of the Telecommunications Act of 1996, CC Docket No. 98-78. As cited therein, Industry analysts project that over 60 percent of all cable systems will be cable-modem ready by the year 2000 (*see* Allied Business Intelligence Press Release, http://www.alliedworld.com/ (CATV98.pdf release)), and approximately 35 percent of all cable systems have been upgraded with hybrid-fiber coax (HFC) network architecture, which is the principal upgrade needed to provide cable modem service. *See Annual Assessment of the Status of Competition in the Market for the Deliver of Video Programming,* Third Annual Report, 12 FCC Rcd 4358, ¶ 172 (1997); *see* D. Shapiro, et al., Deutsche Morgan Grenfell Inc., Ind. Rpt. No. 1964154, Modems *3 (Aug. 27, 1997) (hybrid-fiber coax (HFC) rebuild or upgrade "is generally a precursor to deploying a two-way cable modem service, what is often overlooked is that several operators have been upgrading their networks diligently for the past three, four, and five years, and a great deal of this money has already been spent.").

[5] Several broadband satellite networks are expected to be fully operational soon, including Iridium (Fall 1998), GlobalStar (1998), Ellipso (1998), Odyssey (2000), ICO (2000), Astrolink (2000), and Spaceway (2000). *See* J. Montgomery, The Orbiting Internet, Fiber in the Sky, BYTE, at 58, Nov. 1997.

[6] MCI, pp. 12-13.

treatment for ADSL service sought by the SBC LECs will further that objective of greater availability, more choices, and the other benefits of competition.

Nor can the current ADSL competition that is already present be dismissed as "niche," as WorldCom attempts.[7] Those carriers trumpet their coverage areas and number of households and businesses they can serve with ADSL.[8] For example, in mid-June, Covad announced that its DSL-based service was available to over 1.1 million homes and businesses in the San Francisco Bay Area, and achieved that coverage in less than six months. Covad is continuing to expand in San Francisco, and will also begin in Los Angeles.[9] And as described in these Reply Comments, the number of collocation arrangements as already being provided by the SBC LECs exceeded 300 as of the end of May 1998, with pending orders that will more than *double* that number; a collocated carrier could at any time decide to enter the high-speed data market with ADSL or other telecommunications technologies.

Because of the actual and potential competition in the high-speed data market, competition can be relied on to ensure just and reasonable terms and conditions (including rates) for ADSL, and to protect consumers. Providing the requested regulatory relief under section 10

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[7] WorldCom, p. 12.

[8] To the extent that a carrier could be described as a "niche" provider because it decides for its own business reasons to target a certain customer base or a certain geographic area, such a decision made by a competitor provides no basis for imposing the same limits on the SBC LECs or limiting relief concomitantly.

[9] *See* http://www.covad.com/press/press_061598.html.

-- in light of Congress' clearly expressed desire for the investment in and deployment of new technologies -- is clearly in the public interest. And given that other carriers have access to unbundled loops and collocation, there is no reasonable basis for treating the SBC LECs' ADSL services in such a disparate manner.

B. The SBC LECs Are Not Dominant Providers of ADSL, and the "Dominant" Regulation of Unbundled Loops Neither Prohibits Non-Dominant ADSL Status Nor Compels Dominant Treatment

As ALTS has stated elsewhere, incumbent LECs are not currently offering ADSL services to any great degree.[10] In fact, none of the SBC LECs are yet offering ADSL service as of the date of this filing and with zero market share, are certainly not "dominant" ADSL providers. As explained in the pleadings filed by SBC Communications Inc. in response to the ALTS' petition,[11] the Telecommunications Act of 1996, nearly twenty years of Commission precedent, and compelling economic logic require the Commission to adhere to its longstanding policies of not regulating innovative services offered in competitive markets, and -- above all --

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[10] *See* ALTS "Petition" that resulted in CC Docket No. 98-78. According to ALTS, the dominant providers of services like ADSL are its members – competitive local exchange carriers ("CLECs"). CLECs, ALTS informs the Commission, "were the first" to deploy high-speed data networks and "continue to deploy such advanced technologies at a dramatic pace." Petition at ii (emphasis added). They are "aggressively providing digital services throughout the nation," offering "advanced telecommunications capability to the public today," after having deployed their advanced networks "in hundreds of markets in only a few years' time." Id. at 4, 6, 9 (all emphases added).

[11] *See* "Comments" (filed June 18, 1998) and "Reply Comments" (filed June 25, 1998) in *Petition of the Association for Local Telecommunications Services (ALTS) for a Declaratory Ruling Establishing Conditions Necessary to Promote Deployment of Advanced Telecommunications Capability Under Section 706 of the Telecommunications Act of 1996*, CC Docket No. 98-78.

of not regulating non-dominant, second-to-market providers of such services. It has been the Commission's policy carefully to demarcate less than fully competitive services, and to regulate those services alone, while deregulating competitive services on the other side of the boundary. And within markets that are less than fully competitive, it has been the Commission's unvarying policy to regulate only the dominant provider, not its competitors.

High-speed data services are clearly different from the familiar market for basic, local telephone service -- from both the supply side and the demand side. These services are at least as different from POTS as today's video or wireless services. The SBC LECs are certainly not monopoly providers of ADSL; the service at issue here. For residential and small-business consumers, the main providers of high-speed data services today are cable companies and satellite carriers, along with various other, non-cable, wireline and wireless local carriers.

Alternatively, some commenters seek to rely on the provision of loops by the SBC LECs as a reason to deny non-dominant treatment for ADSL services. That attempt fails utterly if for no reason than it rests on the false premise that the service market definition should only include high-speed data services that use a loop obtained from the SBC LECs. Cable modem and DBS providers do not require unbundled loops from the SBC LECs in order to provide their high-speed data services – they each operate their own, completely independent networks and

distribution facilities.[12] Similarly, CLECs do not rely on the SBC LECs' facilities to serve many large business customers, but instead use their own competitive fiber-optic networks.[13]

Those carriers that opt to use copper loop to provide high-speed data services are already guaranteed access to the unbundled loop, and the right to collocate the facilities that connect to it, by the unbundling and collocation obligations already in place. The SBC LECs are seeking no relief from those obligations with the Petition, and their continued regulatory treatment provides "greater than dominant" treatment for those SBC LEC offerings. With those assured rights, CLECs are in the same competitive position as the SBC LECs in the contest to provide high-speed digital services over existing loops.

Under that state of affairs, there is no legitimate reason to deny the regulatory relief sought for the SBC LECs' ADSL services. The Commission has pursued a consistent policy of permitting incumbent LECs to compete in fully competitive markets, subject to suitable separation of costs, whether or not incumbent LECs maintain control over what is a facility that is arguably "essential" to the relevant service. Thus, the Commission has permitted LECs to

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[12] Although some cable modems use a POTS service for "upstream" transmissions, the SBC LECs are not seeking non-dominant treatment of any such service with the Petition; end users who want to use local service in such a manner will be able to purchase that service regardless of the relief provided pursuant to the Petition.

[13] *See* ALTS Petition, p. 7 (CLECs "throughout the U.S. have over a decade of experience providing advanced data services, including high-speed LAN, frame relay, ATM, Internet access, multipoint video, and private line services. Customers in these "on net" locations have ready access to advanced telecommunications capabilities today, through the efforts of CLECs – not the traditional local telephone monopolies."); *see also* "Comments of the DSL Access Telecommunications Alliance (DATA)," CC Docket No. 98-78, p. 5 ("large business customers typically have a host of high speed options that do not depend on copper.").

compete in the market for CPE and enhanced services,[14] inside wiring,[15] and wireless services.[16] In each of these instances, interconnection and unbundling regulation has required incumbent LECs to separate (unbundle) and provide non-discriminatory access only to the underlying, uncompetitive facilities, and not to competitive facilities and services that may attach to them. The same paradigm applies here.

For good reason, all current regulatory trends are in the direction of encouraging new technologies and services by deregulatory treatment, most especially in the sphere of advanced, high-speed telecommunications services. Cable operators face no regulation when they provide cable modem service.[17] Operators of digital, DBS satellites are already almost completely free to provide any kind of services they wish, subject to almost no rate, content, or carriage regulation.[18] As non-dominant carriers, CLECs face minimal regulation of their advanced

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[14] *See Amendment of Section 64.702 of the Commission's Rules and Regulations (Second Computer Inquiry)*, Docket No. 20828, Final Decision, 77 FCC 2d 384 (1980).

[15] *See Review of Sections 68.104 and 68.123 of the Commission's Rules Concerning Connection of Simple Inside Wiring to the Telephone Network and Petition for Modification of Section 68.213 of the Commission's Rules, filed by the Electronic Industries Association*, Report and Order and Further Notice of Proposed Rulemaking, 5 FCC Rcd 4686 (1990).

[16] *See Implementation of Sections 3(n) and 332 of the Communications Act - Regulatory Treatment of Mobile Services*, Second Report and Order, 9 FCC Rcd 1411, 1418 (1994).

[17] *See, e.g., Implementation of Sections of the Cable Television Consumer Protection and Competition Act of 1992: Rate Regulation and Buy-Through Provisions*, Second Order on Reconsideration, Fourth Report on Order, and Fifth Notice of Proposed Rulemaking, 9 FCC Rcd 4119, 4131 (1994).

[18] *See Inquiry into the Development of Regulatory Policy in Regard to Direct Broadcast Satellites for the Period Following the 1983 Regional Administrative Radio Conference*, 90 FCC

services. Permitting non-dominant treatment for the SBC LECs' ADSL services that permits competition on the same, deregulated, terms can only promote more vigorous competition, more investment, and advanced services to all Americans ultimately.

IV. THE COMMISSION SHOULD ACT PROMPTLY TO RESOLVE THE DEBATE OVER THE INTERSTATE NATURE OF INTERNET TRAFFIC

Another issue that has been fully debated in other proceedings[19] and is ripe for decision by the Commission is the interstate nature of Internet traffic. As detailed in those other proceedings by SBC LECs and by others in other proceedings,[20] Internet traffic is more than 10% interstate in nature. The Commission has repeatedly noted that the Internet is "jurisdictionally interstate."[21] The continued debate and uncertainty surrounding this issue is affecting business

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2d 676, 709 (1982).

[19] *See Access Charge Reform*, CC Docket No. 96-262, *Request by ALTS for Clarification of the Commission's Rules Regarding Reciprocal Compensation for Information Service Provider Traffic*, File No. CCB/CPD 97-30, and *Access Charge Reform; Price Cap Performance Review for Local Exchange Carriers; Transport Rate Structure and Pricing Usage of the Public Switched Network by Information Service and Internet Access Providers*, CC Docket No. 96-262 et al., Notice of Proposed Rulemaking, Third Report and Order, and Notice of Inquiry, 11 FCC Rcd 21354 (1996).

[20] *See* "GTE's Reply," GTE Telephone Operating Companies Tariff FCC No. 1, Transmittal No. 1148, at pp. 7-11 (filed May 28, 1998).

[21] *MTS and WATS Market Structure*, Memorandum Opinion and Order, 97 FCC 2d 682, 715 (1983) (enhanced service is "jurisdictionally interstate"); *see also Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers*, 3 FCC Rcd 2631 (1988) (describing companies that provide such services as "interstate service providers"); *Amendments of Part 69 of the Commission's Rules Relating to Enhanced Service Providers*, Notice of Proposed Rulemaking, 2 FCC Rcd 4305, 4306 (1987) ("enhanced service providers . . . use the local network to provide interstate services").

and network plans and decisions by incumbent LECs, new entrants, and Internet service providers. The SBC LECs urge the Commission to expeditiously address this issue. In no event, however, should the resolution result in a rejection of the Petition. No party has provided any legitimate reason why the Petition must be held in abeyance or otherwise delayed pending resolution of the Internet issue.

V. THE CRITICISMS OF THE THREE LOOP CHECKS ARE UNFOUNDED

Although numerous commenters criticized the three loop checks that the SBC LECs are proposing to perform, there is absolutely nothing unreasonable, discriminatory, or anticompetitive about any of them.

A. The SBC LECs' Spectrum Management is Necessary and Reasonable

The objections to the SBC LECs' spectrum management plan include assertions that spectrum management should not be done at all,[22] that the selection of Alcatel equipment by the SBC LECs will result in discrimination and bias against other ADSL equipment (or even foreclose its use), and that ADSL can act as a disturber of other services. None of the spectrum management claims are well-founded. The SBC LECs support and use the only technical standard for ADSL created by consensus of the industry's technical experts through an open standards process. Use of that standard is pro-competitive and good for consumers. In any event, the SBC LECs have certainly been under no delusions that carriers would unanimously and without objection accept the SBC LEC's spectrum management requirements and processes

[22] DATA, pp. 7-8.

in toto; the SBC LECs expect that these issues will be fully discussed (indeed, those discussions have already begun) and, as appropriate, arbitrated under the 1996 Act.

First, spectrum management is being used to handle and help avoid interference -- hardly a new concern. The Commission, incumbent LECs and others with networks have had to deal with interference issues for years, and in many different contexts (*e.g.*, licensed and unlicensed radio signals, cable television cabling). In fact, the issues surrounding the interference potential of connections of terminal equipment to the public switched network have resulted in over 150 pages of FCC rules as published in the Code of Federal Regulations. *See* 47 C.F.R. Part 68. The Commission has recently found more than one occasion to revisited those rules to again address interference issues.[23] The SBC LECs submit that the interference concerns surrounding the connection of transmission equipment, ADSL included, to an unbundled loop is of a potential magnitude far greater than terminal equipment connection, and must be affirmatively addressed.

With the unbundling requirements for loops, however, the process of addressing interference -- now generally given the name of "spectrum management" -- has become more difficult to administer. Allowing each carrier the total freedom to use any loop to transmit at whatever power and frequencies it wishes can only lead to service and network problems for the

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[23] *See Amendment of Part 68 of the Commission's Rules*, CC Docket No. 96-28, Report and Order, 12 FCC Rcd 19218 (1997); *Review of Section 68.104 and 68.213 of the Commission's Rules Concerning Connection of Simply Inside Wiring to the Telephone Network, Petition for Modification of Section 68.213 of the Commission's Rules Filed by the Electronic Industries Association, Order on Reconsideration*, CC Docket No. 88-57 et al., Second Report and Order, and Second Further Notice of Proposed Rulemaking, 12 FCC Rcd 11897, ¶¶ 39-43 (1997).

services (including ADSL) provided by the SBC LECs and other carriers alike.[24] Spectrum management can thus be analogized to traffic laws -- without speed limits, stop lights, and rules to govern the right-of-way, driving would be chaotic and the chance of harm and damage almost certain. With spectrum management, the assurance of service and its quality can be increased for all carriers and customers, and harms like service failure and "cross-talk" can be minimized. One cannot, as DATA seemingly implies, just allow everyone to drive their own way subject to their own, usually undisclosed, rules of the road. The FCC's actions in limiting and otherwise managing the power and spectral use of radio transmitters is certainly to the contrary.

The entity providing the loop is in the best -- if not only – position to do this spectrum management function. In order to perform the function properly, one must be aware of all of the services that are in the same and adjacent cable binder groups, or at least what is *supposed* to be there.[25] In that capacity, the SBC LECs are committed to neutral and non-discriminatory spectrum management requirements and processes.

The claim that spectrum management or the selection of Alcatel equipment allows the SBC LECs to dictate the technology of ADSL competitors or foreclose their operations is likewise false. Contrary to the impression that might be left by reading the comments, the SBC

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[24] 47 C.F.R. § 68.3 defines "harm" to include "degradation of service to persons other than the user of the subject terminal equipment, his calling or called party." The spectrum management process adopted by the SBC LECs is intended to prevent the same or substantially similar effects.

[25] The SBC LECs suspect that enforcement of spectrum management will be difficult due to attribution difficulties (*e.g.*, determination and proof of the interference causer, disputes).

LECs have chosen equipment that uses the only ADSL standard adopted and issued by the standards process -- "discrete multitone" or "DMT." That standard, ANSI T1.413, was unanimously adopted in 1995, before any of the SBC LECs selected an ADSL vendor or technology. Indeed, DMT was subsequently adopted as the international standard for ADSL by the International Telecommunications Union.

The SBC LECs suspect that those that oppose the Petition have equipment that use a form of "carrierless amplitude phase modulation" ("CAP") technology. Although currently being addressed before T1E1.4, a Working Group of the ANSI-accredited Technical Subcommittee T1E1, none of the CAP variants has yet been adopted as a standard (in contrast, the ITU has apparently refused to consider adoption of a CAP standard). And any CAP standard that may eventually be adopted will be required to be spectrally compatible with DMT (*i.e.*, expected to have essentially the same power and spectral characteristics) so as not to cause interference with equipment operating under the existing standard. To imply, as various commenters attempt, that the SBC LECs are somehow out of the mainstream or that their use of DMT-based Alcatel equipment is unique is simply not accurate.

Notably, however, the SBC LEC's TP76730 publication does not attempt to prohibit the use of CAP or any other non-standard ADSL technology. Every ADSL provider can use the technology and vendor of its choice subject to the same applicable "power spectral density" ("PSD") limitations. The "power spectral density" is a mathematical calculation involving the relationship between the energy added to the loop by the ADSL signal, and the frequency of that

energy. Various combinations of power and frequency are permissible under the PSD, so long as it is not exceeded. The PSD used by the SBC LECs fully comports with the ANSI standard, as does the rest of the technical publication with one exception.[26] CAP-based ADSL equipment can operate within the same PSD and, the SBC LECs believe, have the same or substantially similar operational results as DMT-based equipment (*e.g.*, loop length limits, transmission speeds).

As to those commenters that contend that ADSL is the disturber, the SBC LECs disagree.[27] In almost all cases, ADSL is nor or should not be a disturber, but rather is the service being disturbed. Digital services like T-1, HDSL, and ISDN frequently disturb the ADSL signals if they are in the same or adjacent binder groups. ADSL can interfere with itself in some cases (*e.g.*, at very high bit rates; transmission occurring both ways in the same frequency band in the same binder group tend to reduce the bit rates of both signals), but if ADSL operates within the requirements adopted by the SBC LECs in TP76730, this type of disturbance will be negligible.

The alternative to the power and frequency limitations are a "free for all" with predictable consequences on end-users, carriers, and the involved networks. Imagine all of the radio stations in a metropolitan area transmitting at the same frequency and at the power level they each chose.

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[26] Although the DMT standard permits the optional overlap of the PSDs of the upstream and downstream transmissions (usually referred to as "echo cancellation"), the SBC LEC technical publication does not permit use of overlap for two reasons. First, use of overlap results in greater chances of interference between ADSL services. Second, by not using overlap, the effective reach of ADSL service over a loop is greater; that is, ADSL can be provided over longer loops to the benefit of a greater number of end users.

[27] Numbers of disturbers and length along the desired loop are factors to the levels of disturbance and hence spectrum management.